



Rethinking Vocabulary Instruction

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ABSTRACT

This article briefly reviews the research on word learning and vocabulary teaching, provides a rationale for building a rich vocabulary and identifies nine guidelines for sound vocabulary instruction. Problematic classroom practices are highlighted and a “best-practice” vocabulary teacher is described. The article also includes a Vocabulary Self- Assessment tool for teachers and a list of resources; Professional Books, Children’s Books that Focus on Vocabulary and Internet Sites for Building Students’ Vocabulary.

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Karen Bromley is a Professor and Coordinator of the Literacy Program at Binghamton University (SUNY). She was a third grade teacher and K-8 reading specialist in New York and Maryland. She has written several books for teachers including *Stretching Students’ Vocabulary* and *50 Graphic Organizers for Reading, Writing and More*.

For many years, vocabulary has not been considered an important topic by leaders in reading education (Cassidy & Wenrich, 1997-98; Cassidy & Cassidy, 1998-99; 1999-2000; 2000-01; 2001-02; 2002-03). Indeed, both teachers and teacher educators note that vocabulary instruction has almost disappeared in many classrooms and become a neglected area in teacher education and professional development programs (Brabham & Villaume, 2002, p. 264). Traditionally, for many content area teachers, vocabulary instruction has meant *assign, define and test*. For many classroom teachers, vocabulary instruction has meant *identify, discuss and assume*. These teachers have used word lists, dictionary definitions and discussion rather than multi-dimensional, semantically focused and interactive encounters with words that theory and research suggest are most effective.

Importance of Vocabulary

Wise teachers realize what common sense and experts remind us, that a large vocabulary is an asset for students. Words stand for concepts and are basic units for storing sound (phonemes) and meaning (morphemes) in memory. Vocabulary is “...the glue that holds stories, ideas and content together” (Rupley, Logan & Nichols, 1999, p. 339). Conventional wisdom tells us that vocabulary knowledge builds self-esteem and confidence. Research and theory tell us also that vocabulary knowledge:

Promotes fluency. Students who recognize and understand many words, read more quickly and easily than those with smaller vocabularies. Fluent readers read at a faster rate, process more material more quickly and have better comprehension than less fluent readers (Allington, 2001; Samuels, 2002).

Boosts comprehension. Vocabulary knowledge strongly influences comprehension (Anderson & Freebody, 1981; Nagy & Scott, 2000; Pearson, 1984; Thelen, 1986). On a component analysis of comprehension, word meanings were found to make up 74% of comprehension (Davis, 1972).



Improves achievement. A large vocabulary means a large fund of conceptual knowledge which makes academic learning easier. Students with large vocabularies score higher on achievement tests than students with small vocabularies (Stahl & Fairbanks, 1986).

Enhances thinking and communication. Words are tools for analyzing, inferring, evaluating and reasoning. A large vocabulary allows for communicating in ways that are precise, powerful, persuasive and interesting (Johnson & Pearson, 1984; Vacca & Vacca, 2002).

Vocabulary instruction is one of five areas of instruction (phonemic awareness, phonics, fluency, vocabulary and text comprehension) identified by the *National Reading Panel Report* [NRP] (2000) as critical for successful reading. A summary and classroom implications related to the five areas appear in *Put Reading First: The Research Building Blocks for Teaching Children To Read* (2001). The *Reading First Initiative*, an outgrowth of President Bush's *No Child Left Behind* (2001) legislation, funds states to establish programs that implement research-based reading programs, and vocabulary is identified in this legislation as one of "...the research building blocks for teaching children to read." In classrooms across the country, teachers are rethinking the teaching of vocabulary, and teacher educators are voicing the need to "...address vocabulary instruction more deliberately" in their teaching (Brabham & Villaume, 2002, p. 264).

Word Learning

Opinions vary as to the size of children's vocabularies when they enter school, the rate of vocabulary growth during school and the reasons for these differences. Norman (2002) estimates the spoken vocabularies of five-year old children vary between 1,000 and 5,000 words in September depending on the home environment. Beck and McKeown (1991) estimate that children's sight vocabularies grow at the rate of 3 to 20 new words a day and between 3,000 and 7,000 words a year. Hart and Risely (1995) found that preschool children from families receiving welfare have smaller vocabularies and learn words more slowly than preschool children from professional homes. White, Graves and Slater (1990) report that between grades 1 and 3, the vocabularies of children who live in poverty increase by 3,500 words a year while the vocabularies of middle-class students increase by 5,000 words a year. Clearly, many factors can affect vocabulary learning, including prior knowledge, experiences, exposure to spoken language and print, interactions with others around books, family socio-economic level and, perhaps most important for teachers, the kind of instruction students receive in school.

Sound teaching practices that result in successful word learning require understanding the multiple dimensions of words (Baumann & Kameenui, 1991; Nagy & Scott, 2000). Words are complex and possess different dimensions including; visual (graphics), structural (phonemes, morphemes, prefixes, roots and suffixes), spoken (pronunciation), written (spelling), grammatical (function and use) and semantic (meaning and relationships with other words). So, vocabulary instruction needs to be anchored in a variety of rich contexts including analysis of words parts and meanings, connections to other words, discussion about the context in which a word appears and attention to word structure (Juel & Deffes, 2004).

We know that word knowledge grows over time with words learned little by little, perhaps one dimension at a time and in no sequential order, with full understanding (knowing it well) occurring for some students after many different kinds of encounters. To add to the complexity of words, as many as 70% of the most commonly used words have multiple meanings, possessing either fine shades of



difference or unrelated meanings (Lederer, 1991). But, interestingly, the meanings of 60% of the new words students encounter can be inferred by analyzing word parts (Nagy & Anderson, 1984). Clearly, knowing a word well requires complex understandings.

Problematic Practices

Studies of teachers' beliefs about vocabulary, how it is taught and learned and reviews of vocabulary theory and research suggest several problems with existing practices.

Narrow views and teacher control. Some teachers have a one-dimensional view of the purpose of vocabulary teaching. Watts (1995) studied six, fifth and sixth grade teachers who said they taught vocabulary to help students understand what they were about to read. They did not see broader benefits of teaching vocabulary, nor did they vary their methods. Vocabulary was taught as a prereading activity and teachers typically defined a word, asked for a definition and gave a short context for the word. Teachers controlled the talk about word meanings and closely followed instructions in the manual. Konapack and Williams (1994) analyzed surveys and written lesson plans of 32, Pre-K to grade 5 teachers, and also found they controlled vocabulary instruction and limited it to using new words in context for students and paraphrasing sentences that contained new words.

Mechanical activities in manuals. Many basal reading manuals and content manuals provide low-level, mechanical vocabulary instruction. Ryder and Graves (1994) examined fourth and sixth grade basal manuals and found instruction that was "neither rich nor deep." It was not powerful enough to improve comprehension and did not give students opportunities to process new words in meaningful ways. Words were usually introduced before reading with definitions given by the teacher who directed discussion on some aspect of the word and used the word in a sentence. Students already knew many of the targeted words and teachers made inaccurate predictions of which words students did not know. Harmon, Hedrick and Fox (2000) examined fourth to eighth grade social studies manuals and found instruction focused on definitions, matching terms and fill-in-the-blanks. Many activities were in review sections of chapters or units where words were not introduced first. They found few suggestions for helping students work interactively to manipulate word meanings.

Flashcard practice and little engagement. Practice with flash cards may improve sight-word recognition, but Stahl and Fairbanks (1986) found that multiple repetitions of the same type of information about a target word do not improve comprehension. To gain complex, multifaceted knowledge of a word, students need meaningful and different experiences with it. Methods work best that give students many opportunities to process a word and its dimensions in different ways by making connections to schema (Baumann & Kameenui, 1991; Blachowicz & Fisher, 2000). Making semantically meaningful connections lets students personalize what they learn about a new word and how they learn it.

Incomplete definitions. Dictionary definitions are often inadequate in understanding a new word. McKeown (1993) studied fifth graders' word learning and found that dictionaries define a word by using similar words that don't always give full meanings of the concepts the words stand for. She revised these definitions to include ideas she considered central to a word's meaning which resulted in better responses from students. But, even with revised definitions, students' knowledge of the words was limited. Simply learning definitions was not a powerful route to vocabulary mastery. McKeown concluded that students



need “repeated exposures to information-rich contexts” and dictionary definitions are only introductions to meanings, not routes to mastery.

Unreliable context. Context within or beyond a sentence is not always reliable in determining a word’s meaning. Sometimes context does not contain enough clues. At other times context contains clues, but students do not know how to use them effectively. Beck and McKeown (1991) and Rupley, Logan and Nichols (1999) found that context can reveal a lot or a little about a word’s meaning. Watts (1995) found that teachers frequently instructed students to use context and the dictionary to teach new words which is somewhat effective. In fact, Baumann et al. (2002) found that morphemic and context analysis together helped fifth graders learn and remember words better than either strategy alone. As a stand-alone vocabulary instruction strategy, teaching the use of context does not help acquire rich understanding of the many dimensions of a word.

A “Best-Practice” Vocabulary Teacher

What might a typical teacher look like who has rethought his or her vocabulary teaching? Let’s call this “best-practice” vocabulary teacher Robin. Robin believes vocabulary instruction improves reading comprehension, writing, speaking, content area learning and communication across students’ entire lives. S/he loves words and language, eagerly seeks out and uses new and interesting words, and shares this knowledge, excitement and passion with students. S/he believes students can learn and doesn’t blame them for their difficulties with word learning. S/he models various strategies for learning new words and teaches students to use these strategies independently as they read in science, social studies and math. She makes time for students to interact with each other around new words and helps students analyze words parts and derivations to determine meaning. S/he doesn’t routinely teach words the basal manual or content text suggests. S/he determines which words students already know and teaches only important words they will need to know now and later. S/he makes time for students to interact with each other around new words and helps students analyze word parts and derivations to determine meaning. Robin connects what students already know to the new words they will learn. S/he varies her teaching of new words, sometimes presenting words before reading, sometimes during reading and sometimes after reading. Robin does not rely on the *assign, define* and *test* method or on the *identify, discuss and assume* method. Rather, s/he engages students in multiple interactions with new words in a variety of contexts so they will learn the many dimensions of words.

Research-based Recommendations

We know there is no one “best method” for teaching new words. But, the evidence from theory, research, and practice suggests nine tentative recommendations for sound vocabulary instruction:

1. Display an attitude of excitement and interest about language and words. When you appreciate out-of-the-ordinary, powerful and appealing word use with students and engage them in wordplay, you share your interest and enjoyment with them. This kind of *word consciousness* is a critical aspect of successful word learning programs (Graves & Watts-Taffe, 2002). So, share your excitement with students about the fascinating nature of words and language because this is a subtle way to inspire them to feel the same way.



2. Assess student knowledge and a word's importance before teaching it. Students may already know a new word and you may not need to teach it. Or, the new word is so unique or obscure that it may not appear again soon in anything students read in the future (Nagy & Scott, 2000). Teach only those words that represent critical concepts, are important to comprehension and will likely appear repeatedly in students' reading, writing and speaking.
3. Vary when you teach new words. Sometimes it makes sense to teach a few key words *before* reading that are critical to comprehension. But, sometimes it makes sense for students to meet new words on their own so they can practice word learning strategies independently (Bromley, 2002b; Watts, 1995). Then you can assess whether students' strategies work and if necessary teach new vocabulary *after* reading. And, sometimes it's a good idea to spend time *after* reading in ways that develop the multiple dimensions of a word.
4. Activate students' schema and metacognition. Linking new concepts and knowledge to what students know is a powerful way to "cement" the learning of a new word (Rupley, Logan & Nichols, 1999; Thelen, 1986; Vacca & Vacca, 2002). Activate students' schema (prior knowledge) with questions like "What do I already now about this word?" and their metacognition (understanding of how they learn) with questions like "What do I need to know to remember this word?" and "How did I learn that word?"
5. Note multiple meanings and provide paraphrased meanings. Don't rely on dictionary meanings since they are often incomplete and inadequate for understanding a new word (McKeown, 1993). Do use the dictionary and other sources to investigate word histories and derivations since so many words have multiple meanings and interesting origins (Lederer, 1991). And, encourage students to paraphrase by reframing definitions in their own words so they process meanings personally.
6. Teach word structure and relate new words to other words. Analyze new words by looking at word parts, their meanings and derivations (Bear, Invernizzi, Templeton & Johnston, 2003). Often overlooked by teachers, as many as 60% of the new words a student encounters can be inferred by analyzing the meanings of word parts (Nagy & Anderson, 1984). Even younger students can dissect words to learn the meanings of prefixes, roots and suffixes, e.g., *transformer* (*trans-* to change, *form-* shape, *er-* one who does something). Then, they can connect this learning to the meanings of other words such as *transportation* and *transmission*.
7. Invite students to interact with each other around new words. Providing multiple and varied opportunities to process words and construct meanings both alone and in interactions with others is critical to learning new words (Blachowicz & Fisher, 2000; Rupley, Logan & Nichols, 1999; Stahl & Fairbanks, 1986; Zumwalt, 2003). Help students engage actively together in concept development, use prior knowledge, search for context clues to a word's meaning, use the new word orally, and explore it in relationship to other words so they process meanings, practice pronunciation, and use the words themselves.
8. Model and teach word learning as an active strategy for independent use. Show students how you search for a new word's meaning and pronunciation in a variety of ways and ask student to share their own strategies, e.g., connect to schema, use context before and after the word, analyze parts



of the word, consider a word's function or part of speech and use a dictionary or glossary when all else fails. Teach students to use a variety of techniques as they develop a strategy they can use independently across the curriculum (Bromley, 2002b; Harmon, 2000; Nagy 1988).

9. Don't overlook the Internet as a way to motivate word learning. There are a variety of sites for building word knowledge that students of all ages find motivating and challenging. These sites include interactive puzzles, games, acronym databases, new-word-a-day ideas, dictionaries, thesauruses, and information on slang, technical vocabulary and language in general (Bromley, 2002a; 2002b; and see Fig. 2). You might post a list of these sites near your classroom computer for student use during free time. And, consider sending a list of these sites home for parents to bookmark on the family computer for easy access by children and adults at home.

Rethinking Vocabulary Teaching

Because of the important role vocabulary plays in fluency, comprehension, achievement, thinking and communication, it is critical for teachers and teacher educators to understand word learning so that we can embrace sound teaching practices. Better understandings of perceptions and practices related to word learning can help us rethink the kinds of vocabulary instruction we value and use in our classrooms and teacher education programs. Self-assessment can be a first step in that understanding, and responses to a questionnaire like the one in Figure 1 can provide insight into one's personal beliefs and practices related to word learning and vocabulary instruction. Self-assessment can also serve as an opportunity for reflection, confirmation of sound practices, or the need for change. The lists of related professional books, children's books, and internet sites (see Fig. 2) may be helpful as you begin to rethink vocabulary instruction in your classroom and school. It's not too late to make sound vocabulary instruction an important aspect of your teaching.

Figure 1. Vocabulary Self-Assessment

1. What do I know about word learning?
2. What do I believe about the relationship between vocabulary and fluency, comprehension, achievement, thinking and communication?
3. Do I provide a word-rich environment and immerse my students in new, important and interesting words?
4. Do I have a "can do" rather than a "can't do" attitude about students' word learning abilities?
5. Am I passionate and enthusiastic about word learning?
6. Do I model word learning strategies across the curriculum?
7. Is one of my main goals to develop each student's independent word learning strategies?
8. Do my students already know the new words the manual says I should teach?
9. Which words are central to the selection, chapter or unit? Which words may reappear during the year?
10. How and when do I introduce new words? Is it consistently the same way? Do I routinely pre-teach vocabulary using a manual? Who does the talking?



11. Do I make new words meaningful by linking new information to my students' prior knowledge?
12. Do I assume context always gives my students clues to figure out new words? Or, that students know how to use context?
13. How do I involve students in examining, manipulating and processing new words?
14. Do I provide activities that include more than repetition?
15. Do I assume once a new word is taught it is learned?

Figure 2. Resources for Vocabulary Instruction**Professional Books**

- Allen, J. (1999). *Words, words, words: Teaching vocabulary in grades 4-12*. Portland, ME: Stenhouse.
- Bear, D.R., Invernizzi, M., Templeton, S., & Johnston, F. (2003). *Words their way: Word study for phonics, vocabulary, and spelling instruction* (3rd ed.). Columbus, OH: Merrill.
- Beck, I.L., McKeown, M.G., Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford.
- Blachowicz, C., & Fisher, P.J. (2002). *Teaching vocabulary in all classrooms* (2nd ed.). Columbus, OH: Merrill.
- Blevins, W. (2001). *Teaching phonics and word study in the intermediate grades*. New York: Scholastic.
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- Ganske, K. (2000). *Word journeys: Assessment guided phonics, spelling, and vocabulary instruction*. New York: Guilford.
- Nagy, W.E., (1988). *Teaching vocabulary to improve reading comprehension*. Urbana, IL: ERIC Clearinghouse on reading and communication skills.
- Pinnell, G.S., & Fountas, C. (1998). *Word matters: Teaching phonics and spelling in the reading/writing classroom*. Portsmouth, NH: Heinemann.
- Terban, M. (2002). *Building your vocabulary*. New York: Scholastic.
- Vocabulary [module] (2000). IRA literacy study groups. Newark, DE: International Reading Association.

Children's Books That Focus on Vocabulary:

- Donovan's Word Jar* by Monalisa DeGross (1998). New York: Harper Trophy (Gr. 3-6). A young African American boy loves new words and collects them on slips of paper he puts in his word jar. His grandmother helps him figure out what to do when the jar is full.
- Frindle* by Andrew Clements (1998). New York: Alladin (Gr. 2-4). When Nick learns how words originate he decides to call his pen a *frindle*, a term his classmates, the community and the country adopt.
- The Last of the Really Great Whangdoodles* by Julie Edwards (1999) New York: Harper Collins (Gr. 3-6). Professor Savant teaches three children to see the world in a different way as they visit Whangdoodleland, a special place full of extraordinary creatures like *furry Flukes*, the *High-Behind Splintercat* and the *wonderful Whiffle Bird*.
- Miss Alaineus: A Vocabulary Disaster* by Debra Frasier (2000). San Diego: Harcourt (Gr. 4-6). Home with the flu, Sage misunderstands the weekly vocabulary words her friend gives her which is the beginning of a funny story filled with hundreds of words and definitions.



- Scranimals* by Jack Prelutsky (2002). New York: Greenwillow (K-6). A collection of funny poems about a trip to Scranimal Island, the home of exotic compounded animals like *spinachickens*, *broccolions*, *hippopotamushrooms* and *porcupineapples*.
- A Series of Unfortunate Events* by Lemony Snicket (1st in series-1999- 2003). New York: Harper Trophy (Gr. 4-9). Funny stories about the unlucky adventures of three orphaned children that include colorful and sophisticated words and definitions and bleak events where things never turn out as you'd hope.
- The 6th Grade Nickname Game* by Gordon Korman (2000). New York: Hyperion (Gr. 5-6). Best friends, Jeff and Wiley create nicknames for everyone including their class - *the dim bulbs* and the principal - *a deer in headlights* as they adjust to a new teacher.
- There's an Ant in Anthony* by Bernard Most (1992). New York: Mulberry Books (K-2). Anthony discovers the small word *ant* in his name and finds some words where it appears and some words where it doesn't appear.
- Who Put the Butter in Butterfly and Other Fearless Investigations into Our Illogical Language* by David Feldman (1990). New York: Harper Collins (Gr. 3-6). Explanations of the origin of words, curious clichés and phrases including such terms as *jaywalking*, *ladybug* and why an outdoor bazaar is called a *flea market*.
- Word Wizard* by Cathryn Falwell (1998). New York: Houghton Mifflin (Gr. K-3). With a magic spoon and alphabet cereal, young Anna and Zack discover how to rearrange letters to make new words.

Internet Sites for Building Students' Vocabulary:

- www.eduplace.com/tales/ Creates and publishes "Wacky Web Tales" using 10-15 words supplied by students (Gr. 3-6)
- www.puzzlemaker.com Offers clip art and tools for creation of word puzzles (Gr. 3-8).
- netnet.net/~jgales/wrdsites.html Offers links to games like "What's in a Name?" (students have 2 minutes to make as many words as they can from the letters in a name). (Gr. 3-8)
- www.vocabulary.com Offers puzzles, games and the opportunity to earn a diploma from "Vocabulary University." (Gr. 3-12)
- www.askanexpert.com Experts develop word meanings by answering questions about specific subjects. (Gr. 3-12)
- www.acronymfinder.com/about.asp#what Provides an acronym database with words and meanings for 232,000 acronyms (Gr. 3-12)
- www.encyclopedia.com Gives information on various subjects and world events and links to dictionaries, almanacs and thesauruses. (Gr. 3-12)
- www.surfnetkids.com/games/ Gives a directory of games (e.g., crossword or jigsaw) and topics (e.g., science or history) (Gr. 3-12)
- www.m-w.com/game Introduces "Word Game of the Day" in different puzzle formats (Gr. 3-12)
- www.randomhouse.com/words/ Presents slang, technical vocabulary and new words, answers questions about words, accepts suggestions for new words and includes vocabulary games. (Gr. 3-12)
- www.maps.com Contains map and geography games that teach and test knowledge of place names around the world. (Gr. 4-12)
- www.wordsmith.org/awad/index.html Introduces a word a day related to a weekly theme, its definition, pronunciation, etymology and use. (Gr. 6-12)



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